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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,069	03/23/2000	Eric M. Foster	END00-0010-US1	9894

30743 7590 04/05/2004

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EXAMINER

BOWES, SARA E

ART UNIT PAPER NUMBER

2136

DATE MAILED: 04/05/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

BEST AVAILABLE COPY

Office Action Summary

Application No.

09/535,069

Applicant(s)

FOSTER ET AL.

Examiner

Sara Bowes

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Status of Claims

Claims 1-27 are pending in this office action, claims 1,4-6, 8, 9, 15, 17, 18, and 25 are newly amended.

Applicant's arguments filed January 28, 2004 have been fully considered but they are not persuasive.

Rejections

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Claim Rejections - 35 USC § 103

Claims 1-9 and 11-27 rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore et al. (EP 0 908 810 A2) in view of Sandstrom et al. (U.S. Patent No. 5,619,571).

Referring to claims 1, 14, and 25 Candelore et al. teach a method/apparatus for receiving an encrypted data file comprising:

- defining a write order of data blocks of said data file to non-sequential storage locations of a mass memory [column 32, lines 56-57],
- storing said data blocks in said mass memory in accordance with said write order and updating a table corresponding to said non-sequential storage locations [column 33, lines 2-4].

Candelore et al. do not teach a method/apparatus comprising:

- encrypting the table with a key, forming an encrypted table, and
- storing said encrypted table to said mass memory.

However, Sandstrom et al. disclose a method/apparatus comprising:

- encrypting the table with a key unique to the decoder, forming an encrypted table [figure 2 and column 5, lines 12-16, 45-50, column 6, lines 22-23], and
- storing said encrypted table to said mass memory [column 3, lines 1-2].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Sandstrom et al.'s teaching, of encrypting stored data in mass memory, to the system and method of Candelore et al, such that Candelore et al's system would include a subsystem to encrypt the storage locations of the data blocks. One would have been motivated to modify Candelore et al.'s system as such in order to provide more security for the stored data blocks with less processor cost.

Referring to claims 2, 3, and 26, Candelore et al. as modified teach a method as recited in claim 1 wherein said mass memory is a hard disk or a compact disk recorder/player [column 20, lines 4-6].

Referring to claims 4, 5 and 15, Candelore et al. as modified teach said means for storing/updating said data utilizes a second key and said means for encrypting the table utilizes a third key [see Sandstrom et al., column 6, lines 22-25]

Referring to claim 6, Candelore et al. as modified teach a method as recited in claim 4, wherein said key and said second keys are identical [column 24, lines 7-8].

Referring to claims 7, 8 and 16, Candelore et al. as modified teach a method/apparatus wherein two of said first, second and third keys are identical [column 24, lines 6-7].

Referring to claims 9 and 17, Candelore et al. as modified teach a method/apparatus recited in claims 1 and 14 respectively further including:

- loading a portion of said data file, as blocks of data, into a memory queue [column 28, lines 18-21],
- setting a counter in accordance with a number of blocks in said memory queue [column 35, lines 52-56], and
- performing said step of defining a write order in accordance with said counter [column 35, lines 49-51].

Referring to claim 11, Candelore et al. as modified teach all limitations of claim 11 except the method including the further step of including said write order in said header.

Sandstrom et al. discloses the method including the further step of including said write order in said header [figure 2, IMAGE FILE HEADER 52, Pointer 60].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Sandstrom's teaching, of including the write order in the header, to the system and method of Candelore et al, such that Candelore et al's system would include a subsystem to append a header to the data block. One would have been motivated to modify Candelore et al.'s system as such in order to provide the reordering circuit multiplexer and the address scrambler with a location as where to store the data block.

Referring to claims 12 and 19, Candelore et al. as modified teach a method/apparatus as recited in claim 1, including a further step of transmitting encryption software for performing said encryption of said data file to said decoder [column 33, lines 17-21].

Referring to claim 13, Candelore et al. as modified teach a method as recited in claim 12, wherein said encryption software includes said first key [associated elements (column 33, lines 11-12, 17-21)].

Referring to claim 18, Candelore et al. as modified teach a decoder as recited in claim 14, wherein one of said key, said second key and said third key is not shared with any other device [column 24, lines 7-11].

Referring to claim 20, Candelore et al. as modified teach a decoder as recited in claim 14, further including a port to an outboard mass storage device [figure 1, EXTERNAL MEMORY 110, 165, 113].

Referring to claims 21, 23, and 27, Candelore et al. as modified teach a method/apparatus wherein said table and said encrypted table are a file allocation table and an encrypted file allocation table, respectively [column 30, lines 3-10].

Referring to claims 22 and 24, Candelore et al. as modified teach a method/apparatus as recited in claims 1 and 14 respectively, wherein said defining step is performed in accordance with a first key [a number, line 36] and allocates corresponding sectors of said mass memory [column 30, lines 3-10, 33-38].

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Candelore et al. (EP 0 908 810 A2) in view of Sandstrom et al. (U.S. Patent 5,619,571) as applied to claim 1 above, and further in view of Mishina (U.S. Patent No. 5,745,643).

Referring to claim 10, Candelore et al. as modified teach all limitations of claim 10 except for the further step of separating audio and video into respective data blocks.

Mishina discloses separating audio and video into respective data blocks [figure 1, SYSTEM PROCESSOR SECTION 54, VIDEO DECODER SECTION 58, AUDIO DECODER SECTION 60 and column 7, lines 21-24].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Mishina's teaching, of separating the audio and video into respective data blocks, to the system and method of Candelore et al, such that Candelore et al's system would include a subsystem to separate the digital content into audio and video content. One would have been motivated to modify Candelore et al.'s system as such in order to provide the speakers with the audio signal and the video signal to the display.

Response to Arguments

Claims 1-27 are pending in this office action, claims 1,4-6, 8, 9, 15, 17, 18, and 25 are newly amended.

Applicant argues:

1. Candelore reference does not suggest a connection between block re-ordering and a key maintained internal to the decoder, or unique to the decoder.
2. Sandstrom reference does not suggest encryption of a storage location table.
3. Dependent claims 2-13, 15-24, and 26-27 are allowable based upon their dependency on allowable claims 1, 14, and 25.

Referring to argument 1., examiner disagrees with applicant. Candelore discloses a block re-ordering scheme and suggests that the ordering be preformed using the same encryption algorithm used in prior encryption [column 32, line 48 –

column 33, line 4]. Thus, the block re-ordering scheme of Candelore does disclose a connection between block re-ordering and a key maintained internal to the decoder, or unique to the decoder.

Referring to argument 2., examiner disagrees with applicant. Sandstrom discloses an information file directory that is suggested to be stored in the private area. The private area is encrypted using the uniquely constructed key [column 5, lines 47-51, and column 6, lines 23-26]. In other words, the encryption scheme of Sandstrom does disclose encryption of a storage location table.

Referring to argument 3., examiner disagrees with applicant. Based on the arguments set forth by the examiner for arguments 1. and 2., the dependent claims stand as rejected.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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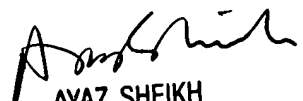
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Bowes whose telephone number is 703-305-0326. The examiner can normally be reached on 7:30-4:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

seb
3/30/2004


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